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SHORT COMMUNICATION

## Sedation for OPD Procedures- Recommendations

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*Received 10 January 2012; Revised 11 February 2013; Accepted 17 February 2013*

**Citation:** Jayashree P (2013) Sedation for OPD Procedures-Recommendations. J Med Sci Res 1(1): 37-39.

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### Introduction

The day of surgery or any diagnostic procedure such as an endoscopy, MRI, angiogram etc can provoke a variety of emotions, from excitement to anxiety and sometimes fear in a patient. To alleviate this condition, many of the times anesthetist gets a call to provide sedation to the patient. But it is observed that most of the doctors have some sort of misunderstanding about these terminologies. They think that anesthesia and sedation are totally different, but the fact is sedation is a milder form of anesthesia, where all the precautions pertaining to general anesthesia are important.

Strictly speaking, anesthesia is the absence of sensation. There are different levels of absence of sensation depending on what sensation are referred to. From being completely awake to being completely asleep and unconscious during general anesthesia, it is a spectrum. It depends on the patient, the family, the procedure, the surgeon, the situation, the anesthesiologist, and multiple other factors to determine the level of anesthesia needed. Depending on the type of anesthesia needed (or the lack of sensation needed), one or several medicines can be used. A general anesthetic usually includes hypnosis or unconsciousness, amnesia, immobility, analgesia, and control of sympathetic responses to surgery. Amnesia entails the inability to remember things that occur during surgery. Analgesia is the relief of pain. Controlling sympathetic responses to surgery means that we try and limit the fight or flight response of the body to surgery. Unconsciousness means patients are obviously asleep. Immobility refers to the need for a patient that is not moving in order to facilitate the procedure. Depending on the

procedure, a general anesthetic may require less or more of one of these factors. But the common theme with general anesthesia is that patient will remain sedated during the time the anesthetic is being administered.

## Definitions

The American Society of Anesthesiologists defines the continuum of sedation as follows:

**Minimal Sedation** - Normal response to verbal stimuli [1]. Cognitive functions & co-ordination may be impaired, but ventilatory and cardio vascular functions are unaffected [2].

**Moderate Sedation** - Purposeful response to verbal/tactile stimulation.<sup>1</sup> (This is usually referred to as "conscious sedation")

**Deep Sedation** - Purposeful response to repeated or painful stimulation [1]. The ability to independently maintain ventilatory function may be impaired. A patient may require assistance with maintaining a patent airway and spontaneous ventilation may be inadequate. Cardiovascular function is usually maintained.

**General Anesthesia** - Unarousable even with painful stimulus [1]. The ability to independently maintain ventilatory function is often impaired. Patients often require assistance in maintaining a patent airway, and positive pressure ventilation may be required because of depressed spontaneous ventilation or drug-induced depression of neuromuscular function. Cardiovascular function may be impaired.

**Procedural Sedation** [2] - The term "procedural sedation" is also frequently used in the USA and increasingly in the UK. Procedural sedation has been defined as "the technique of administering sedatives or dissociative agents with or without analgesics to induce a state that allows the patient to tolerate unpleasant procedures while maintaining cardio-respiratory function. Procedural sedation and analgesia is intended to result in a depressed level of consciousness, but one that allows the patient to maintain airway control independently and continuously. Specifically, the drugs, doses, and techniques used are not likely to produce a loss of protective airway reflexes". Procedural

sedation is not defined by nor does it describe the depth of anaesthesia. Instead it is defined by its ability to allow the patient to tolerate an unpleasant procedure.

In the United Kingdom, deep sedation is considered to be a part of the spectrum of general anesthesia, as opposed to conscious sedation.

## Practical guidelines

Following guidelines should be followed before administering sedation as any time this may get converted to general anesthesia, negligence of which leads to fatal complications.

On the day of surgery, patient should be asked to arrive early for many reasons. Some of these reasons are to complete lab work, to review paperwork, and to update medical history. Arrangements may need to be made for post operative care.

### Pre-procedural Fasting Recommendations [3]

Patient counseling should be done and Informed consent to be taken after explaining all risks, benefits and options.

During and immediately after sedation, patients should never be left alone.

A monitoring assistant shall be present to continuously assess patient well-being and facilitate patient safety and comfort. Medications shall be administered only under the direction of an anaesthesiologist. Blood pressure, heart rate, respiratory rate, and oxygen saturation should be monitored continuously. Supplemental oxygen should be considered for an oxygen saturation of less than 96% at any time during the procedure.


All the Emergency medicines and Emergency Resuscitative Equipment should be available [4].

IV access should be maintained preferably for 4 hours after the procedure.

The patient should not be left alone during the recovery period, and vital signs should be monitored immediately post-procedure and frequently until stable and adequate function is restored.

**American Society of Anesthesiologists fasting guidelines**

<i>Ingested material</i>	<i>Minimum fast<sup>a</sup></i>
Clear liquids <sup>b</sup>	2 hours
Breast milk	4 hours
Infant formula	6 hours
Non-human milk	6 hours
Light meal <sup>c</sup>	6 hours

a Fasting times apply to all ages.  
 b Examples: water, fruit juice without pulp, carbonated beverages, clear tea, black coffee.  
 c Example: dry toast and clear liquid. Fried or fatty foods may prolong gastric emptying time. Both amount and type of food must be considered.  
 The guidelines recommend no routine use of gastrointestinal stimulants, gastric acid secretion blockers or oral antacids. 

Infants less than 48 weeks Post Conceptual Age (PCA) and premature infants less than 60 weeks PCA must be monitored for a minimum of 12 hours prior to discharge.

Patient should be discharged when he/she meets following criterias:

- Patient should be fully conscious
- Vital signs should be stable and within normal limits
- Minimum of 2 hours observation is mandatory after the time of the last dose of drugs
- Escorted by an adult with instructions to report back, in case of any complication
- Written instructions on post-procedure diet, medications, activities and provision of an emergency contact number, in case of emergency.
- Airway obstruction, apnea and hypotension are not uncommon during sedation and require the presence of health professionals who are suitably trained to detect and manage these problems.

**References**

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